

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

1-2. (Canceled)

3. (Withdrawn) An information network system comprising:

a plurality of computer systems;

a communication network, to which at least some of said computer systems are communicatively coupled;

a functionally coherent and physically distributed cache memory comprising a plurality of memory portions each within a memory of a computer system among a first set of said computer systems; and

a functionally coherent and physically distributed data storage device comprising a plurality of data storage portions each within a data storage device of a computer system among said first set of computer systems, at least one of said computer systems being configured to perform data I/O with said functionally coherent and distributed data storage device.

4. (Withdrawn) The system of claim 3 wherein said functionally coherent and physically distributed cache memory is operable as data cache for I/O operations with said functionally coherent and physically distributed data storage device.

5. (Withdrawn) The system of claim 3 wherein said first set of computer systems comprises all of said computer systems.

6. (Withdrawn) The system of claim 3 wherein said first set of computer systems comprises a subset of said computer systems.

1                   7.       (Withdrawn) The system of claim 6 wherein another computer system,  
2 not belonging to said first set of computer systems, can access said functionally coherent and  
3 physically distributed data storage device.

1                   8.       (Withdrawn) The system of claim 3 wherein said functionally coherent  
2 and physically distributed data storage device is configured as a functionally coherent and  
3 physically distributed RAID storage device.

1                   9.       (Withdrawn) The system of claim 3 wherein said memory portions are  
2 portions of volatile random access memories of said first set of computer systems.

1                   10.      (Withdrawn) An information network comprising:  
2                   a first set of computer systems each having means for organizing a portion of its  
3 memory as a unified multiple-computer system cache memory; and  
4                   a second set of computer systems each having means for organizing a portion of  
5 its data storage as a unified multiple-computer-system data storage device accessible to at least  
6 some of said information network to perform I/O.

1                   11.      (Withdrawn) The system of claim 10 wherein said unified multiple-  
2 computer system cache memory comprises a portion of memory from each of said computer  
3 systems and said unified data storage device comprises a portion of data storage of a data storage  
4 device of at least one of said computer systems.

1                   12.      (Withdrawn) The system of claim 10 wherein said unified data storage  
2 device is configured to be accessible to at least one computer system not belonging to said  
3 second set.

1                   13.      (Withdrawn) The system of claim 10 wherein said unified data storage  
2 device is configured as a distributed RAID storage device.

1                   14.     (Withdrawn) The system of claim 10 wherein said portions of memory  
2 are portions of volatile random access memories of said first set of computer systems.

1                   15.     (Withdrawn) A method for operating an information network comprising:  
2                   organizing into a unified data storage device at least one data storage portion from  
3 each of a first plurality of computer systems of said network; and  
4                   performing data I/O access to the unified data storage device using a distributed  
5 cache memory that includes at least one memory portion from each of a second plurality of  
6 computer systems of said information network.

1                   16.     (Withdrawn) The method of claim 15 further comprising defining all  
2 computer systems in said information network as said second plurality.

1                   17.     (Withdrawn) The method of claim 15 further comprising defining said  
2 second plurality as a subset of said information network.

1                   18.     (Withdrawn) The method of claim 17 further comprising accessing said  
2 unified data storage device with at least one computer system that is not one of said first  
3 plurality.

1                   19.     (Withdrawn) The method of claim 15 further comprising configuring said  
2 distributed data storage device as a distributed RAID storage device.

1                   20.     (Withdrawn) The method of claim 15 in which volatile memories are  
2 configured as at least some of the memory portions.

1                   21.     (Withdrawn) The method of claim 15 further comprising defining said  
2 first plurality as a subset of said information network.

1           22.   (Withdrawn) An information network system comprising:  
2           a plurality of computer systems;  
3           a communication network, to which at least some of said computer systems are  
4   communicatively coupled;  
5           a distributed cache memory comprising a plurality of memory portions, each  
6   memory portion being a portion of a memory of a computer system among a subset of said  
7   computer systems, said memory portions being organized to function as a single coherent cache  
8   memory; and  
9           a distributed data storage device comprising a plurality of data storage portions,  
10   each data storage portion being a portion of storage of one or more data storage devices of a  
11   computer system among said subset of computer systems, said data storage portions being  
12   organized to function as a single data storage device, wherein said computer systems can  
13   perform data I/O with said distributed data storage device and wherein said distributed cache  
14   memory is operable as a cache memory for said distributed data storage device.

1           23.   (Withdrawn) An information network comprising:  
2           a plurality of computer systems;  
3           each computer system among at least a first subset of said computer systems  
4   having first means for performing distributed caching, wherein each first means provides a  
5   portion of memory from its corresponding computer system, wherein all of said first means  
6   cooperate to provide a unified system cache memory from among said portions of memory; and  
7           each computer system among said first subset further having second means for  
8   performing distributed data storage, wherein each second means provides a portion of data  
9   storage of a data storage device from its corresponding computer system, wherein all of said  
10   second means cooperate to provide a single data storage device, wherein said computer systems  
11   access said single data storage device to perform I/O.

12                   24.     (Withdrawn) A method for an information network comprising a plurality  
13 of computer systems, the method comprising:  
14                   each computer system among a first set of said computer systems providing a  
15 portion of its RAM memory, collectively referred to as a plurality of memory portions;  
16                   organizing said memory portions into a unified cache memory;  
17                   each computer system among said first set of computer systems providing a  
18 portion or portions of one or more its data storage devices, collectively referred to as a plurality  
19 of data storage portions; and  
20                   organizing said data storage portions into a single data storage device; and  
21                   providing data I/O access to said single data storage device, wherein any of said  
22 plurality of computer systems can access said single data storage device.

1                   25.     (New) An information backup system comprising:  
2                   a plurality of computer systems;  
3                   a communication network, to which at least some of said computer systems are  
4 communicatively coupled;  
5                   a functionally coherent and physically distributed cache memory comprising a  
6 plurality of memory portions each within a memory of a computer system among a first set of  
7 said computer systems; and  
8                   a functionally coherent and physically distributed data storage device comprising  
9 a plurality of data storage portions each within a data storage device of a computer system  
10 among said first set of computer systems, at least one of said computer systems being configured  
11 to perform data I/O with said functionally coherent and distributed data storage device.

1                   26.     (New) The system of claim 25 wherein said functionally coherent and  
2 physically distributed cache memory is operable as data cache for I/O operations with said  
3 functionally coherent and physically distributed data storage device.

1                   27.     (New) The system of claim 25 wherein said first set of computer systems  
2 comprises all of said computer systems.

1                   28.     (New) The system of claim 25 wherein said first set of computer systems  
2 comprises a subset of said computer systems.

1                   29.     (New) The system of claim 28 wherein another computer system, not  
2 belonging to said first set of computer systems, can access said functionally coherent and  
3 physically distributed data storage device.

1                   30.     (New) The system of claim 25 wherein said functionally coherent and  
2 physically distributed data storage device is configured as a functionally coherent and physically  
3 distributed RAID storage device.

1                   31.     (New) The system of claim 25 wherein said memory portions are portions  
2 of volatile random access memories of said first set of computer systems.

1                   32.     (New) An information backup system comprising:  
2                   a first set of computer systems each having means for organizing a portion of its  
3 memory as a unified multiple-computer system cache memory; and  
4                   a second set of computer systems each having means for organizing a portion of  
5 its data storage as a unified multiple-computer-system data storage device accessible to at least  
6 some of said information network to perform I/O.

1                   33.     (New) The system of claim 32 wherein said unified multiple-computer  
2 system cache memory comprises a portion of memory from each of said computer systems and  
3 said unified data storage device comprises a portion of data storage of a data storage device of at  
4 least one of said computer systems.

1                   34.     (New) The system of claim 32 wherein said unified data storage device is  
2 configured to be accessible to at least one computer system not belonging to said second set.

1                   35.     (New) The system of claim 32 wherein said unified data storage device is  
2 configured as a distributed RAID storage device.

1                   36.     (New) The system of claim 32 wherein said portions of memory are  
2 portions of volatile random access memories of said first set of computer systems.

1                   37.     (New) A method for operating an information backup system comprising:  
2 organizing into a unified data storage device at least one data storage portion from  
3 each of a first plurality of computer systems of said network; and  
4 performing data I/O access to the unified data storage device using a distributed  
5 cache memory that includes at least one memory portion from each of a second plurality of  
6 computer systems of said information network.

1                   38.     (New) The method of claim 37 further comprising defining all computer  
2 systems in said information network as said second plurality.

1                   39.     (New) The method of claim 37 further comprising defining said second  
2 plurality as a subset of said information network.

1                   40.     (New) The method of claim 39 further comprising accessing said unified  
2 data storage device with at least one computer system that is not one of said first plurality.

1                   41.     (New) The method of claim 37 further comprising configuring said  
2 distributed data storage device as a distributed RAID storage device.

1                   42.     (New) The method of claim 37 in which volatile memories are configured  
2 as at least some of the memory portions.

1                   43.     (New) The method of claim 37 further comprising defining said first  
2 plurality as a subset of said information network.

1           44.   (New) An information backup system comprising:  
2           a plurality of computer systems;  
3           a communication network, to which at least some of said computer systems are  
4   communicatively coupled;  
5           a distributed cache memory comprising a plurality of memory portions, each  
6   memory portion being a portion of a memory of a computer system among a subset of said  
7   computer systems, said memory portions being organized to function as a single coherent cache  
8   memory; and  
9           a distributed data storage device comprising a plurality of data storage portions,  
10   each data storage portion being a portion of storage of one or more data storage devices of a  
11   computer system among said subset of computer systems, said data storage portions being  
12   organized to function as a single data storage device, wherein said computer systems can  
13   perform data I/O with said distributed data storage device and wherein said distributed cache  
14   memory is operable as a cache memory for said distributed data storage device.

1           45.   (New) An information backup system comprising:  
2           a plurality of computer systems;  
3           each computer system among at least a first subset of said computer systems  
4   having first means for performing distributed caching, wherein each first means provides a  
5   portion of memory from its corresponding computer system, wherein all of said first means  
6   cooperate to provide a unified system cache memory from among said portions of memory; and  
7           each computer system among said first subset further having second means for  
8   performing distributed data storage, wherein each second means provides a portion of data  
9   storage of a data storage device from its corresponding computer system, wherein all of said  
10   second means cooperate to provide a single data storage device, wherein said computer systems  
11   access said single data storage device to perform I/O.



46. (New) A method for an information backup system comprising a plurality of computer systems, the method comprising:

- each computer system among a first set of said computer systems providing a portion of its RAM memory, collectively referred to as a plurality of memory portions;

- organizing said memory portions into a unified cache memory;

- each computer system among said first set of computer systems providing a portion or portions of one or more its data storage devices, collectively referred to as a plurality of data storage portions; and

- organizing said data storage portions into a single data storage device; and

- providing data I/O access to said single data storage device, wherein any of said plurality of computer systems can access said single data storage device.